

In the Abstract

Please amend the "Abstract" on page 25, as follows:

ABSTRACT OF THE DISCLOSURE

According to one embodiment of the invention, a method for An integrated decision support framework is disclosed, in which different types of decision drivers from numerous sources can be converted into a unified decision network including, for example, both mathematical and node edge graph representations. The method includes receiving decision inputs. The method also includes converting the received decision inputs to graph representations and mathematical representations. The method further includes decomposing the converted decision inputs to sub-problems. The method further includes detecting strongly-connected components associated with the sub-problems. The strongly-connected components represent the sub-problems that are coupled. The method further includes solving the sub-problems. A graph theoretic algorithm may be applied to the large problem (unified decision network) to detect and separate strongly-connected components. The strongly connected components represent sub-problems that can be solved simultaneously. A dependency propagation technique may be used to properly order the sub problems so they can be processed and solved sequentially and correctly. Each strongly connected component (small sub-problem) can be delegated to a suitable decision generator depending on the types of relations included in the component. For example, a numerical solution algorithm may be used to solve the ordered, numerical relations sub problems; an algebraic solution algorithm may be used to solve the ordered, geometric relations sub problems; and a logical inference engine (algorithm) may be used to solve the ordered, logical relations sub problems. Solutions thus derived can be propagated to the next stage of the decision resolution process until a complete problem is solved.